

Attorney's Docket No. 022701-974
Application No. 10/019,694
Page 8

REMARKS

Applicants respectfully request entry of the foregoing and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.112, and in light of the remarks which follow.

Claims 1-18 are pending in the application, new claims 16-18 having been added above.

By the above amendments, the Abstract is replaced with the above new Abstract. Claim 8 is amended by deleting the word "the" and replacing the word "chosen" with --selected--. In its amended form, claim 8 now reads, in part, "wherein addition of the carbamoyl fluoride takes place gradually to a solvent heel brought to the selected reaction temperature." Claim 9 is amended by deleting the word "the" before the word "addition"; by adding the words --of the carbamoyl fluoride to the solvent-- after "addition"; and by deleting the word "ten" before the word "final." In its amended form, claim 9 reads, in part, "wherein addition of the carbamoyl fluoride to the solvent is carried out at a rate such that, in the final 90% of the reaction duration taking place below 100°C. . . ." Claim 10 is amended by replacing "hybridization" with-- hybridized--, as suggested by the Examiner. Claim 10 has been further amended by replacing "carrying" with --bearing--. Claims 11 and 12 have been similarly amended by replacing "carrying" with--bearing--. Claim 14 is amended by deleting "substrate" and adding--carbamoyl fluoride--. Claim 14 is further amended by deleting "comprising" and adding --from-- so that the claim reads, in part, "m is 0 or an integer from 1 to 4." Claim 15 is amended by deleting the words

Attorney's Docket No. 022701-974
Application No. 10/019,694
Page 9

"advantageously monochloro-, dichloro- and trichlorobenzenes". New claim 16 is added to further define the chlorobenzene of claim 15 as a monochlorobenzene, a dichlorobenzene or a trichlorobenzene. New claims 17 and 18 are added to further define exemplary embodiments of the present invention. Support for new claim 17 can be found at least at original claims 1 and 6, and support for new claim 18 can be found at least at page 13 of the specification.

Applicants thank the Examiner for the courtesies extended to their representative, Martin A. Bruehs during the telephone interview on February 12, 2004. In particular, Applicants thank the Examiner for acknowledging that Applicants do not have a duty to produce a certified copy of the French priority document FR 99/08,647, filed on July 5, 1999. That is, in accordance with Rule 17.2, it is understood that the International Bureau is responsible for providing a copy of the French priority document. Applicants also thank the Examiner for indicating that the above amendments and the following remarks made to address the §112, second paragraph, issues would be favorably considered. Finally, Applicants thank the Examiner for indicating that he would favorably consider new claims 17 and 18 and Applicants' remarks concerning the §102 and §103 rejections over GB 955,898.

Turning now to the Official Action, the specification stands objected to under M.P.E.P. §608.01(a) and 37 C.F.R. §1.77. As agreed during the telephone interview of February 12, Applicants are not required to amend the specification to conform to the

Attorney's Docket No. 022701-974
Application No. 10/019,694
Page 10

requirements of M.P.E.P. §608.01(a) and 37 C.F.R. §1.77 because these sections only provide suggested guidelines.

Reconsideration and withdrawal of the objection are respectfully requested.

Applicants thank the Examiner for acknowledging the claim to foreign priority based on FR 99/08647. Additionally, Applicants note that the Official Action asserts that Applicant has not filed a certified copy of the priority application as required by 35 U.S.C. §119(b). During the telephone interview of February 12, however, it was agreed that Applicants do not have a duty to furnish a copy of the priority document where the priority document has been filed together with the international application. In particular, Rule 17.2 of the PCT, set forth in M.P.E.P. §201.13(b), states: "Where the Applicant has complied with Rule 17(a) or (b) the International Bureau shall, at the specific request of the designated office, promptly but not prior to the international publication of the international application, furnish a copy of the priority document to that office. No such office shall ask the applicant himself to furnish it with a copy." (Emphasis added.)

Therefore, in accordance with the provisions of Rule 17.2, Applicants respectfully request that the Patent Office request that the International Bureau promptly furnish a copy of the priority document.

Claims 1-14 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. For at least the reasons that follow, withdrawal of the rejection is in order.

With respect to the rejection of claim 1 for use of the term "finely," Applicants do not believe that an amendment is necessary to obviate the rejection. That is, Applicants

Attorney's Docket No. 022701-974
Application No. 10/019,694
Page 11

submit that claim 1 particularly points out and distinctly claims the subject matter which Applicants regard as their invention. Because the scope of subject matter embraced by claim 1 is clear, and Applicants have not otherwise indicated that they intend the claim to be of different scope, claim 1 particularly points out and distinctly claims the subject matter which Applicants regard as their invention. See *In re Borkowski*, 422 F.2d 904, 164 USPQ 642 (CCPA 1970).

Furthermore, the Federal Circuit has had the opportunity to decide a number of §112, second paragraph, cases. From these cases, it is clear that definiteness of claim language must be analyzed, not in a vacuum, but in light of (1) the content of the particular application disclosure, (2) the teachings of the prior art, and (3) the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. See, for example, *In re Marosi*, 710 F.2d 799, 219 USPQ 289 (Fed. Cir. 1983). The purpose of claims is not to explain the technology or how it works, but to state the legal boundaries of the patent grant. A claim is not "indefinite" simply because it is hard to understand when viewed without the benefit of the specification. See *S3, Inc. v. nVidia Corp.*, 259 F.3d 1364, 59 USPQ 2d 1745 (Fed. Cir. 2001).

Applicants submit that the meaning of the words "finely dispersed" is clear when read in light of the content of the application's disclosure, teachings of the prior art and when interpreted by those possessing the ordinary level of skill in the art. (See, for example, the specification at page 3, lines 13-18.) Specifically, one of ordinary skill in the

Attorney's Docket No. 022701-974
Application No. 10/019,694
Page 12

art having read the disclosure at page 3, would readily understand what the legal boundaries of claim 1 are. That is, one of ordinary skill in the art, having read the disclosure at page 3, would understand that the process of claim 1 includes the use of carbamoyl fluoride in a dissolved or finely dispersed state in the solvent, wherein the dissolved or finely dispersed state permits the production of isocyanate with a good yield.

Accordingly, Applicants submit that because one skilled in the art would be able to tell with a reasonable degree of certainty whether his or her conduct is within or outside the scope of claim 1, claim 1 is neither vague nor indefinite. See *In re Borkowski*.

Next, with respect to the rejection of claim 1 for use of the words "makes it possible," Applicants submit that no amendment to claim 1 is needed. That is, because this language was previously deleted in the Preliminary Amendment filed on January 3, 2002, further amendment of claim 1 is not necessary.

With respect to the rejection of claims 2 and 7 for use of the words "is at most/equal to" and "is at least equal," Applicants submit that no amendment to claim 2 or 7 is needed to obviate the rejection. In particular, as agreed during the telephone interview of February 12, the language of claims 2 and 7 sufficiently states the legal boundaries of the claims so that one skilled in the art would be able to tell with a reasonable degree of certainty whether his or her conduct is within or outside the scope of the claims.

With respect to the rejection of claim 8 for use of the "solvent heel," Applicants submit that an amendment to claim 8 is not required to obviate the rejection. In particular, Applicants submit that the term "solvent heel" would be readily understood by those of

Attorney's Docket No. 022701-974
Application No. 10/019,694
Page 13

ordinary skill in the art. To support this assertion, Applicants submit that a search of issued U.S. patents on the U.S. Patent and Trademark Office web site using the term "solvent heel" shows that at least 13 issued U.S. patents use this term. Thus, it is clear that those of ordinary skill in the art use the term "solvent heel" and that the term would be readily understood.

With respect to the rejection of claim 8 for use of the word "chosen," Applicants have amended claim 8 to obviate the rejection. In particular, Applicants have replaced "chosen" with --selected--. Because the word --selected-- is equivalent to the word "chosen" it is understood that this amendment does not constitute a narrowing amendment made for purposes of patentability. Thus, claim 8 should be accorded its full range of equivalents.

With respect to the rejection of claim 9 for failing to provide proper antecedent basis for "the addition," Applicants have amended claim 9 to obviate the rejection. In particular, Applicants have amended claim 9 to read, in part, ". . . wherein addition of the carbamoyl fluoride to the solvent is carried out at. . . ." Additionally, with respect to the rejection of claim 9 for use of the words "in the ten final 90%," Applicants have amended claim 9 to obviate the rejection. In particular, Applicants have deleted the word "ten" from claim 9.

With respect to the rejection of claim 10 for use of the word "hybridization," Applicants have amended claim 10 to obviate the rejection. Specifically, Applicants have replaced "hybridization" with -- hybridized--. Additionally, with respect to the rejection of

Attorney's Docket No. 022701-974
Application No. 10/019,694
Page 14

claim 10 for use of the term "carrying," Applicants have amended claim 10 by replacing "carrying" with --bearing--. Applicants submit that this amendment does not constitute a narrowing amendment made for purposes of patentability because the word --bearing-- is equivalent to the word "carrying." Accordingly, claim 10 should be accorded its full range of equivalents.

With respect to the rejections of claims 11 and 12 for use of the word "carrying," Applicants have amended claims 11 and 12 by replacing "carrying" with --bearing--. Applicants submit that claims 11 and 12 should also be accorded their full range of equivalents because the amendments to these claims do not constitute narrowing amendments made for purposes of patentability.

With respect to the rejection of claim 14 for failing to provide antecedent basis for the words "the substrate," Applicants have amended claim 14 to obviate the rejection. Specifically, Applicants have replaced "substrate" with --carbamoyl fluoride--. Support for this amendment can be found at least at page 6, lines 21-24.

With respect to the rejection of claim 14 for use of the word "comprising" in the definition of m, Applicants have amended claim 14 to obviate the rejection. Specifically, Applicants have replaced "comprising" with --from--.

Finally, with respect to the rejection of claim 15 for use of the language "advantageously," Applicants have amended claim 15 to obviate the rejection. Specifically, Applicants have deleted the language "advantageously monochloro-, dichloro- and trichlorobenzenes."

Attorney's Docket No. 022701-974
Application No. 10/019,694
Page 15

For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the §112, second paragraph, rejection of claims 1, 2, 7-10, 12, 14 and 15.

Claims 1-8 and 10-15 stand rejected under 35 U.S.C. §102(b) as being anticipated by GB 955,898 (GB '898). For at least the reasons that follow, withdrawal of the rejection is in order.

Claim 1, as amended above, recites a dehydrofluorination process to convert an aromatic carbamoyl fluoride to the corresponding isocyanate, comprising subjecting carbamoyl fluoride to a temperature at least equal to 80°C, in a solvent and at a temperature of at least 80°C, wherein said carbamoyl fluoride is in the dissolved or finely dispersed state in the solvent. (Emphasis added.)

The Official Action takes the position that GB '898 teaches that carbamic acid fluoride, an intermediate, is converted to p-trifluoromethylphenyl isocyanate in the presence of xylene and hydrofluoric acid. Thus, the Official Action concludes that GB '898 teaches each and every aspect of the rejected claims. (See Official Action at page 5.)

GB '898 relates to a process for the production of carbamic acid fluorides or isocyanates substituted by fluorine on aliphatic carbon atoms. (See GB '898 at page 1, lines 1-9.)

It is well established that in order to demonstrate anticipation under §102(b), each element of the claim at issue must be found, either expressly described or under the principles of inherency, in the single prior art reference. See *Kalman v. Kimberly-Clark, Corp.*, 218 USPQ 789 (Fed. Cir. 1983). That is not the case here.

Attorney's Docket No. 022701-974
Application No. 10/019,694
Page 16

For example, as explained in the specification at page 2, lines 8-18, GB '898 "indicates the possibility of carrying out this reaction in Example 1." However, the technique used in GB '898 results in a low yield, (e.g. 35%). Thus, Applicants submit the reaction of GB '898 is very difficult and results in unwanted heavy products described as resins. In stark contrast, however, the process of claim 1 recites that the "carbamoyl fluoride is in the dissolved or finely dispersed state in the solvent." As explained in the specification at page 3, lines 13-18, "the finely dispersed nature or the dissolved nature of the carbamoyl fluoride at a temperature where it is reactive plays a key role in the production of isocyanate with a good yield." GB '898 does not disclose or suggest a process that includes carbamoyl fluoride "in the dissolved or finely dispersed state." Accordingly, Applicants submit that claim 1 cannot be deemed anticipated by GB '898 because GB '898 does not expressly or inherently describe each element of claim 1.

For at least the above reasons, Applicants submit that claim 1 is patentable over GB '898. The remaining claims (2-8 and 10-15) depend, either directly or indirectly, from independent claim 1, and are therefore also patentable over GB '898 for at least the reasons that claim 1 is patentable. Reconsideration and withdrawal of the rejection are respectfully requested.

Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over GB '898. For at least the reasons that follow, withdrawal of the rejection is in order.

To establish a *prima facie* case of obviousness, the prior art references (or references when combined) must teach or suggest all of the claim elements. See *In re*

Attorney's Docket No. 022701-974
Application No. 10/019,694
Page 17

Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). In addition, "all words in a claim must be considered in judging the patentability of that claim against the prior art." See *In re Wilson*, 424 F.2d 1382, 1385; 165 USPQ 494, 496 (CCPA 1970). See M.P.E.P. §2143.03.

As claim 9 depends from claim 1, claim 9 necessarily includes all of the elements of claim 1. Thus, claim 9 is patentable over GB '898 for at least the reasons that claim 1 is patentable thereover. Specifically, GB '898 fails to disclose or suggest a defluorination process which includes use of a carbamoyl fluoride in the dissolved or finely dispersed state. Thus, GB '898 fails to disclose or suggest all of the claim elements.

Furthermore, GB '898 does not reflect a proper consideration of "all words" in the claim (including all of the words of claim 1, from which claim 9 depends). In particular, because GB '898 neither discloses nor suggests a dehydrofluorination process, which includes use of a carbamoyl fluoride in the dissolved or finely dispersed state, Applicants submit that the Official Action has not given full consideration to all of the claim elements, i.e., patentable weight must be given to "carbamoyl fluoride is in the dissolved or finely dispersed state in the solvent" in claim 1 in judging the patentability of claim 9 over GB '898.

For at least these reasons, claim 9 is patentable over GB '898. Applicants respectfully request reconsideration and withdrawal of the rejection.

As a final matter, Applicants have added new claims 16, 17 and 18. New claim 16 further defines the chlorobenzenes of claim 15 as being a monochlorobenzene, a

Attorney's Docket No. 022701-974
Application No. 10/019,694
Page 18

dichlorobenzene or a trichlorobenzene. Support for new claim 16 can be found at least at original claim 15. Applicants submit that claim 16 is patentable over GB '898 for at least the reasons that claim 1 is patentable.

New claim 17 defines a dehydrofluorination process like that defined in independent claim 1 but which further specifies that the carbamoyl fluoride is introduced into the solvent with hydrofluoric acid in the form of a solution comprising anhydrous hydrofluoric acid. Support for new claim 17 can be found at least at original claims 1 and 6. Applicants submit that claim 17 is patentable over GB '898 for at least the reasons that claim 1 is patentable.

New claim 18 defines a dehydrofluorination process similar to that recited in independent claim 1. Claim 18, however, further specifies that the total yield is at least about 70%. Support for this amendment can be found at least at page 13 of the specification. Claim 18 is also patentably distinguished over GB '898 for at least the reasons that claim 1 is patentable.

Finally, as requested by the Examiner during the telephone conference on February 12, 2004, Applicants attach hereto a copy of GB '898.

From the foregoing, Applicants earnestly solicit further and favorable action in the form of a Notice of Allowance.

Attorney's Docket No. 022701-974
Application No. 10/019,694
Page 19

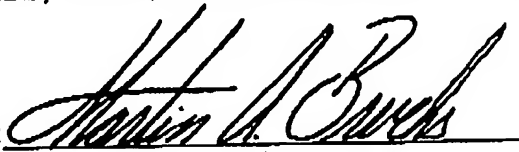
If there are any questions concerning this paper or the application in general,
Applicants invite the Examiner to telephone the undersigned at the Examiner's earliest
convenience.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: February 13, 2004

By:



Martin A. Bruehs
Registration No. 45,635

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620

Attachment: GB 955898